

WHAT IS CLAIMED IS:

1. A sputtering target for film formation of the magnetic layer of a magnetic recording medium comprising
5 at least a nonmagnetic undercoat layer, a magnetic layer, and a protective layer laminated sequentially on a nonmagnetic substrate comprising:
a mixture of a metal and an oxide, wherein a particle diameter of said oxide being 10 μm or less.
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2. The sputtering target as claimed in claim 1, wherein the particle diameter of said oxide is 5 μm or less.
3. The sputtering target as claimed in claim 1, wherein
15 said mixture comprises an alloy containing at least Co and Pt, and at least one oxide selected from the group consisting of oxides of Si, Ti, Zr, Al and Cr.
4. The sputtering target as claimed in claim 2, wherein
20 said mixture comprises an alloy containing at least Co and Pt, and at least one oxide selected from the group consisting of oxides of Si, Ti, Zr, Al and Cr.
5. A method for producing a magnetic recording medium
25 comprising at least a nonmagnetic undercoat layer, a magnetic layer, and a protective layer laminated sequentially on a nonmagnetic substrate, comprising the

step of;

forming said magnetic layer by RF sputtering of a sputtering target for the magnetic recording medium, and wherein

5 said sputtering target for the magnetic recording medium comprises a mixture of a metal and an oxide, and a particle diameter of said oxide in the sputtering target is 10 μm or less.

10 6. The method for producing a magnetic recording medium as claimed in claim 5, wherein the particle diameter of said oxide in the sputtering target is 5 μm or less.

7. The method for producing a magnetic recording medium
15 as claimed in claim 5, wherein said sputtering target is a mixture comprising an alloy containing at least Co and Pt, and at least one oxide selected from the group consisting of oxides of Si, Ti, Zr, Al and Cr.

20 8. The method for producing a magnetic recording medium as claimed in claim 6, wherein said sputtering target is a mixture comprising an alloy containing at least Co and Pt, and at least one oxide selected from the group consisting of oxides of Si, Ti, Zr, Al and Cr.

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9. A magnetic recording medium comprising at least a nonmagnetic undercoat layer, a magnetic layer, and a

protective layer laminated sequentially on a nonmagnetic substrate, wherein

the magnetic layer is a granular magnetic layer having a structure in which crystal grains containing Co
5 and having ferromagnetism are surrounded with oxide grain boundaries,

the magnetic layer has been obtained by RF sputtering of a sputtering target for a magnetic recording medium, the sputtering target comprising a mixture of a
10 metal and an oxide, the oxide having a particle diameter of 10 μm or less, and

defects attributed to particles of the oxide and measuring 0.05 μm or more are not present on a surface of the magnetic recording medium.